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August 4, 2005

Sent by email to [wtc@nist.gov](mailto:wtc@nist.gov)

WTC Technical Information Repository  
Attn: Mr. Stephen Cauffman  
National Institute of Standards and Technology  
Stop 8610  
Gaithersburg, Maryland 20899

Re: New York City Comments to NIST NCSTAR 1 and NCSTAR 1-8

Dear Mr. Cauffman,

The City of New York submits this letter in response to NIST's final draft report on the Collapse of the World Trade Center Towers and the Emergency Response Operations on September 11, 2001. While we do not concur in all portions of NIST's assessment of the City of New York's response on 9/11, the City found the report overall to be well researched, balanced, and helpful. The City appreciates and commends the hard work and dedication by all the NIST employees who contributed to the report.

We write primarily to advise NIST of the many improvements the City has implemented in its emergency operations since 9/11 and request that they be noted in NIST's final report. However, there is one factual inaccuracy in the draft report that we particularly want to bring to your attention. In the draft "Final Report of the National Construction Safety Team on the Collapses of the World Trade Center Towers", NIST NCSTAR 1, Chapter 8.4.3 Emergency Response, p. 187, the report states that "NYPD aviation unit personnel reported critical information about the impending collapse of the WTC towers several minutes prior to their collapse. No evidence has been found to suggest that the information was further communicated to all emergency responders at the scene." This is factually inaccurate. The NYPD aviation unit never reported anything about the potential collapse of the South Tower prior to its collapse. The City asks that this inaccuracy be corrected in NIST's final report. We also note that both the New York City Police and Fire Departments issued orders to evacuate the North Tower

independently of and prior to any aviation unit transmissions regarding a possible collapse of that Tower. We request that this fact also be acknowledged in the final report.

The NIST report includes many important recommendations as to how the City can improve its emergency response. Over the past few years, the City has implemented many of the same improvements recommended by NIST, in particular improved communications, and command and control techniques, and greater coordination among its agencies through a series of exercises and table top drills. These improvements and drills are described below in greater detail and we believe the report would benefit by mention of them in NIST's final report.

#### **Improvements in FDNY Communications:**

- The Department successfully tested and deployed newly modified handie-talkie radios to the field in February 2003. These analog radios have several features that provide significant advantages over the previous digital model. The Department's radios now have an emergency alert function, many more channels, allow for greater penetration in buildings and allow for interoperability among Fire, EMS and other emergency service agencies, including NYPD. The new analog radios are generally more efficient during incidents when many firefighters and officers are attempting to communicate at the same time over the same frequency and allow for more messages getting through without being "stepped on" by other messages.
- FDNY developed and implemented a new communications system consisting of the new handie-talkies, high-powered post radios and Battalion car repeaters, providing increased reliability during high rise building responses. The FDNY currently has 13 Battalion cars with the repeaters. The post radios are interoperable-capable 45-watt radios, which were designed initially for use by the Incident Commander at the command post. Because they fit in a small specially designed hard-shell suitcase and are light enough to be carried, they can be used at any assigned post within a high-rise. The post radios are used regularly.

#### **Improvements in Interoperability:**

##### **Equipment:**

- TRP 1000 – OEM, FDNY and NYPD have successfully field tested and deployed the TRP 1000, a new piece of equipment that provides radio interoperability during incidents that require communications across multiple organizations using different radios and different frequencies. The TRP 1000 units allow interagency communications at incident scenes without requiring responding personnel to carry multiple radios. The TRP was successfully field tested and was ready for use during the Republican National Convention held in New York City in 2004.
- FDNY battalion and higher ranking chiefs have access to an interoperability channel on their handie-talkies which can be used to communicate with NYPD. The interoperability channel has been successfully tested in drills.

- All FDNY personnel have the capability to communicate with the NYPD Special Operations units on a dedicated tactical channel (“TAC U”). This is a police frequency that FDNY programmed into the handie-talkies of all chief officers and all FDNY units.

**Liaison:**

- Fire Department commanders ride in police helicopters to help them better coordinate operations at major fires. Interoperable radios on police helicopters were successfully field tested. Also, NYPD helicopter video can now be down-linked to the FDNY Operations Center.
- A police captain is now required to respond to any two-alarm fire. In addition, the Police and Fire Departments have senior staff assigned to one another’s headquarters to address any issues that may arise.
- FDNY and NYPD have initiated regular interagency practice drills to enhance joint response.

**FDNY improvements in Command and Control:**

- FDNY has been at the forefront of the development of Electronic Command Boards (ECB’s), which will enable chiefs to communicate wirelessly between several ECB’s at an incident and download critical information to the Fire Department Operations Center in real time.
- FDNY implemented a flexible recall program in order to efficiently mobilize all or part of its firefighter and EMS personnel in the event of a large-scale emergency or an increase in the terrorism threat level. The Department’s regulations were amended in Spring 2003 to clarify and emphasize that recalled members must report to their firehouse, unless instructed otherwise.
- FDNY has modified its staging procedures to ensure that the incident commander (IC) can effectively maintain command and control of resources as incidents escalate. Its new staging regulations require the designation of a Staging Area Chief and the establishment of a staging area at all third or greater alarms. The IC can make such designations for any alarm level, if necessary.
- FDNY units are now prohibited from “riding heavy.” There are a designated number of assignments on each apparatus and no extra firefighters may ride along.

**Other City improvements regarding Command and Control:**

- CIMS - NYPD, FDNY, OEM and all other relevant City agencies follow the Citywide Incident Management System (CIMS), ensuring that all responders know which agency is responsible and in a leadership role at any incident.

### **Drills/Exercises:**

OEM has facilitated numerous exercises in conjunction with NYPD and FDNY. Since 9/11, FDNY and NYPD have both participated in the following inter-agency drills, most of which were coordinated by OEM:

- Operation Tripod (5/22/02) -- OEM conducted Operation Tripod at Pier 92 in Manhattan, which addressed response to a possible bioterrorism attack.
- Yankee Stadium Drill (9/29/02) -- HazMat drill at Yankee Stadium in the Bronx.
- Operation SADD (10/5/02) -- The Port Authority conducted a simulated aircraft disaster drill at LaGuardia Airport in Queens.
- Ft. Hamilton HazMat Drill (10/17/02) -- HazMat decon drill at Fort Hamilton in Brooklyn.
- HazMat Drill (10/27/02) -- HazMat preparedness drill took place at the Verrazano Narrows Bridge in Staten Island.
- Broad Street HazMat Drill (4/27/03) -- The Transit Authority conducted an inter-agency preparedness exercise in Manhattan at the Broad Street subway station that involved a simulated chemical release and evacuation of passengers from the station.
- Winter Sun (5/18/03) -- OEM conducted an inter-agency HazMat preparedness exercise in Brooklyn.
- Grand Central Terminal Drill (10/27/03) -- FDNY Division 3 conducted a drill in the Waldorf train yard of Grand Central Terminal in Manhattan. The drill involved a simulated electrical malfunction in the M-50 substation of the Waldorf yard resulting in an explosion and fire in the vicinity of the substation. The simulated malfunction also caused a power surge into the third rail resulting in an ensuing fire in a parked train.
- Operation United Response (3/14/04) -- OEM conducted a preparedness exercise at Shea Stadium in Queens simulating a large-scale, multi-casualty incident.
- Operation Transit Safe (5/16/04) -- OEM conducted a preparedness exercise at the Bowling Green subway station in Manhattan. This exercise simulated a large-scale, underground multi-casualty incident.
- Staten Island Ferry (10/04) -- OEM conducted a drill simulating the sinking of a Staten Island Ferry.
- PODEX (6/2/05) -- OEM, FDNY, NYPD, and DOHMH participated in a city-wide preparedness exercise simulating a biological attack. In this drill, city, state and federal agencies all worked together to further develop an integrated response to a biological exposure.
- Bronx Train Derailment (6/15/05) -- OEM, FDNY and NYPD conducted a tabletop exercise to practice multi-agency response to a chemical spill.

If you have any questions or comments please feel free to contact me at your convenience.

Very truly yours,

Gary Shaffer  
Deputy Chief, World Trade Center Unit

cc: Melissa Lieberman, Esq.